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EXAMINER	
MAHMOUDI, HASSAN	
ART UNIT	**PAPER NUMBER**
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DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/727,096	Applicant(s) MONTGOMERY, DENNIS L.
	Examiner Tony Mahmoudi	Art Unit 2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

D.P. 11/24/03

1)☒ Responsive to communication(s) filed on *02 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21,29 and 39-73* is/are rejected.

7)☒ Claim(s) *22-28 and 30-38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Remarks

1. In response to communications filed on 2-July-2003, the Abstract and the specification of the disclosure are amended. In addition, claims 6, 21, and 42-44 are amended, and new claims 47-73 are added per applicant's request. Therefore, claims 1-73 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-3, 6-7, 16-18, 20-21, 29, 39-53, 61, 64, 66-73 are rejected under 35 U.S.C. 102(e) as being anticipated over Johns (U.S. patent No. 6,366,289.)

As to claims 1 and 61, Johns teaches a method of operating upon digital data (see Abstract) comprising the steps of:

partitioning the digital data into a plurality of blocks (see column 2, lines 53-66);

creating a plurality of first threads, such that each first thread includes at least one of the plurality of blocks (see figure 7, and see column 5, lines 58-67, where "plurality of threads" is read on "subregions called chunks"); and

operating upon each of the plurality of first threads to obtain a plurality of compressed first threads (see column 6, lines 3-6), each compressed first thread including at least one compressed block of digital data (see column 7, lines 62-66, and see column 16, lines 8-13.)

As to claim 2, Johns teaches wherein the step of operating upon each of the first threads performs lossless compression (see column 20, lines 46-54.)

As to claim 3, Johns teaches wherein the step of operating upon each of the first threads independently operates upon each of the plurality of first threads (see column 18, lines 52-57, and see column 21, lines 52-54.)

As to claim 6, Johns teaches the method further comprising the step of combining the compressed locks in each of the plurality of compressed first threads to obtain digitally compressed data (see figure 6, and see column 14, lines 52-55, where "combining the plurality of compressed first threads" is read on "compressed chunks are linked together in a linked list format".)

As to claim 7, Johns teaches wherein the step of creating the plurality of first threads includes the step of associating each of the plurality of blocks of digital data with one of the

plurality of first threads such that blocks within each of the plurality of first threads share certain common compression characteristics (see column 7, lines 62-66.)

As to claim 16, Johns teaches wherein the step of partitioning data includes the step of determining a size of each of the plurality of blocks taking data type of each block into account (see column 10, lines 45-59.)

As to claims 17 and 64, Johns teaches the method further including the steps of:

operating upon each of the compressed first threads to eliminate each of the compressed first threads and retain the compressed first blocks (see column 2, line 66 through column 3, line 3, where "eliminate" is read on "freeing up memory");

creating a plurality of second threads, such that each second thread includes at least one of the plurality of compressed first blocks (see figure 7, and see column 5, lines 58-67, where "plurality of threads" is read on "subregions called chunks"); and

operating upon each of the plurality of second threads to obtain a plurality of compressed second threads (see column 6, lines 3-6), each compressed second thread including at least one compressed second block of digital data (see column 7, lines 62-66, and see column 16, lines 8-13.)

As to claim 18, Johns teaches wherein the step of operating upon each of the second threads independently operates upon each of the plurality of second threads (see column 18, lines 52-57, and see column 21, lines 52-54.)

As to claims 20 and 66, Johns teaches wherein, during the step of operating upon each of the plurality of second threads, the same compression algorithm used to operate upon each block is also used to operate upon the corresponding compressed block (see Johns, column 17, lines 45-51, where using" variety of compression methods" is taught. It is inherent that the same compression algorithm can be used to operate upon each block.)

As to claim 21, Johns teaches the method further comprising the step of combining the compressed blocks in each of the plurality of compressed second threads to obtain digitally compressed data (see figure 6, and see column 14, lines 52-55, where "combining the plurality of compressed first threads" is read on "compressed chunks are linked together in a linked list format".)

As to claim 29 and 67, Johns teaches wherein each first thread has an associated first metadata set (see column 6, lines 1-6.)

As to claim 39, Johns teaches a method of operating upon digital data (see column 4, lines 58-63) comprising the steps of:

compressing the digital data using multiple passes of a predetermined compression algorithm to obtain compressed digital data (see column 5, lines 45-47); and

decompressing the compressed digital data using a single pass of a corresponding decompression algorithm to obtain the digital data (see column 5, lines 47-48.)

As to claim 40, Johns teaches an apparatus for operating upon digital data (see column 4, lines 58-63) comprising the steps of:

means for compressing the digital data using multiple passes of a predetermined compression algorithm to obtain compressed digital data (see column 5, lines 45-47); and

means for decompressing the compressed digital data using a single pass of a corresponding decompression algorithm to obtain the digital data (see column 5, lines 47-48.)

As to claim 41, Johns teaches wherein the means for compressing (see column 5, lines 45-47) includes:

an interface controller (see column 2, lines 64-66, where "an interface controller" is read on "a virtual frame buffer controller"); and

a compression engine (see column 21, lines 36-38.)

As to claim 42, Johns teaches wherein the compression engine comprises a single central processing unit (see column 4, lines 31-36.)

As to claim 43, Johns teaches wherein the compression engine comprises a plurality of central processing units (see column 4, lines 20-25.)

As to claim 44, Johns teaches wherein each of the plurality of central processing units operate upon a different plurality of threads (see column 4, lines 20-25, where it is inherent that "other computer system configurations" operate upon different threads.)

As to claim 45, Johns teaches wherein the plurality of central processing units comprise a plurality of digital signal processors (see column 9, lines 52-61.)

As to claim 46, Johns teaches a method of allowing a plurality of compression systems to operate more efficiently (see Abstract) comprising the steps of:

obtaining metadata representative of patterns in first digital data obtained from the compression of the first digital data in a first compression system (see column 6, lines 1-6); and

distributing the metadata to the at least a second compression system so that the second compression system can use the metadata to compress second digital data which the second compression system needs to compress (see column 6, lines 29-35.)

As to claims 47 and 69, Johns teaches wherein each first thread further includes control signals (see column 7, lines 62-66, where "control signal" is read on "control data".)

As to claims 48 and 70, Johns teaches wherein the control signals in each first thread include a compression routine control signal indicating a compression routine to be used in

the step of operating (see column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14.)

As to claims 49 and 71, Johns teaches wherein different ones of the compression routine control signals (see column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14) indicate different compression routines for different first threads (see column 6, lines 1-6, where "different compression routines" is read on "lossy or lossless compression methods".)

As to claims 50 and 72, Johns teaches wherein different ones of the compression routine control signals (see column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14) indicate a same compression routines for different first threads (see column 6, lines 1-6. It is inherent that when the "compression routine control signal" has the same value for the different first threads, the same compression routine will be used for the different first threads.)

As to claims 51, 52, and 73, Johns teaches wherein different ones of the first threads include blocks of data containing different types of data (see column 5, lines 45-57.)

As to claim 53, Johns teaches wherein different ones of first threads include blocks of data that do not share common compression characteristics (see column 5, lines 45-47, where Johns teaches different first threads include blocks of data containing different types of data,

and see column 6, lines 1-6, where "compression routine control signal" is taught. It is inherent that when the "compression routine control signal" has a different value for the different first threads, the compression routine, and therefore the compression characteristics will be different for the different first threads.)

As to claim 68, Johns teaches wherein each first metadata set a passes required variable (see column 6, lines 11-16, where Johns teaches "metadata" as "information about the chunk" of data, which is stored in a "chunk control data". This stored information, as taught by Johns, includes "pertinent information about a chunk such as the format of pixels within the chunk, its compression format, and the memory location of the chunk's pixels in physical memory".)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4-5, 11-13, 19, 54-60, 62-63, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johns (U.S. patent No. 6,366,289) in view of Simms (U.S. Patent No. 5,586,280.)

As to claims 4, 54, 62, and 65, Johns does not teach wherein at least certain ones of the threads are independently operated upon in parallel.

Simms teaches a method for appending data to compressed records (see Abstract), in which he teaches wherein at least certain ones of the first threads are independently operated upon in parallel (see column 17, lines 16-20, and see column 19, lines 27-33.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns to include at least certain ones of the first threads are independently operated upon in parallel.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns by the teachings of Simms, because having at least certain ones of the first threads are independently operated upon in parallel, would improve the system performance, resulting in a more efficient compression of the data in a reduced time period than a single compression process.

As to claim 5, Johns as modified teaches wherein, during the step of operating, at least two different compression algorithms are used to independently operate upon different first threads (see Johns, column 17, lines 45-51, and see Simms, column 2, lines 5-12, and lines 50-56, column 4, lines 29-55, and see column 5, lines 49-59.)

As to claim 11, Johns does not teach wherein the step of creating each of the plurality of first threads uses a data type of each of the plurality of blocks so that each of the first threads contains blocks which have a similar data type.

Simms teaches the step of creating each of the plurality of first threads uses a data type of each of the plurality of blocks so that each of the first threads contains blocks which have a similar data type (see column 7, lines 11-16.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns to include the step of creating each of the plurality of first threads uses a data type of each of the plurality of blocks so that each of the first threads contains blocks which have a similar data type.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns by the teaching of Simms, because having the step of creating each of the plurality of first threads uses a data type of each of the plurality of blocks so that each of the first threads contains blocks which have a similar data type, would enable the system to categorize data into blocks of data with common characteristics amongst the data items.

As to claim 12, Johns as modified teaches wherein the data type is determined according to header information related to each block (see Simms, column 3, lines 7-14.)

As to claim 13, Johns as modified teaches where the data type is determined by comparing the block data to various predetermined data patterns (see Simms, column 20, lines 8-24.)

As to claim 19, Johns does not teach wherein at least certain ones of the second threads are independently operated upon in parallel.

Simms teaches a method for appending data to compressed records (see Abstract), in which he teaches wherein at least certain ones of the second threads are independently operated upon in parallel (see column 17, lines 16-20, and see column 19, lines 27-33.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns to include at least certain ones of the second threads are independently operated upon in parallel.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns by the teachings of Simms, because having at least certain ones of the second threads are independently operated upon in parallel, would improve the system performance, resulting in a more efficient compression of the data in a reduced time period than a single compression process.

As to claim 55, Johns as modified teaches wherein each first thread further includes control signals (see Johns, column 7, lines 62-66, where "control signal" is read on "control data".)

As to claim 56, Johns as modified teaches wherein the control signals in each first thread include a compression routine control signal indicating a compression routine to be used in the step of operating (see Johns, column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14.)

As to claim 57, Johns as modified teaches wherein different ones of the compression routine control signals (see Johns, column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14) indicate different compression routines for different first threads (see Johns, column 6, lines 1-6, where "different compression routines" is read on "lossy or lossless compression methods".)

As to claim 58, Johns as modified teaches wherein different ones of the compression routine control signals (see Johns, column 19, lines 10-56, where "compression routine control signal" is read on "compression type parameter", and see column 22, lines 11-14) indicate a same compression routines for different first threads (see Johns, column 6, lines 1-6. It is inherent that when the "compression routine control signal" has the same value for the different first threads, the same compression routine will be used for the different first threads.)

As to claim 59, Johns as modified teaches wherein different ones of the first threads include blocks of data containing different types of data (see Johns, column 5, lines 45-57.)

As to claims 60 and 63, Johns as modified teaches wherein during the step of operating upon each of the plurality of first threads, at least two different compression algorithms (see Johns, column 17, lines 45-53, and see column 18, lines 19-40) are used to independently

operate upon first threads (see Johns, column 18, lines 52-57, and see column 21, lines 52-54.)

6. Claims 8-10 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johns (U.S. patent No. 6,366,289) in view of Morikawa et al (U.S. Patent No. 6,043,897.)

As to claims 8 and 14, Johns does not teach the method further including the step of predicting an estimated compression time and estimated compression amount for each block.

Morikawa et al teaches an image forming apparatus (see Abstract), in which he teaches the step of predicting an estimated compression time (see column 2, lines 14-18) and estimated compression amount for each block (see column 5, lines 57-63.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns to include the step of predicting an estimated compression time and estimated compression amount for each block.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Johns by the teaching of Morikawa et al, because including the step of predicting an estimated compression time and estimated compression amount for each block would enable the system to provide the user with information associated with compression of each block of data, as to how long the compression would take and how large the size of the compressed data would be after performing the operation on the block of data.

As to claims 9 and 15, Johns as modified teaches wherein the step of creating the plurality of first threads also uses estimated compression time and estimated compression amount to determine which blocks should be associated with the same first thread (see Morikawa et al, column 2, lines 4-18.)

As to claim 10, Johns as modified teaches wherein the estimated compression time and estimated compression amount are made based upon a selected compression algorithm, and wherein the step of predicting includes the step of determining whether a proposed estimated completion time that is based upon one of the compression algorithms available for selection will allow for a desired compression amount to be achieved within a desired compression time for the digital data (see Morikawa et al, column 2, lines 7-17.)

Allowable Subject Matter

7. Claims 22-28, and 30-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Johns (U.S. Patent No. 6,366,289), Simms (U.S. Patent No. 5,586,280), and Morikawa et al (U.S. Patent No. 6,043,897), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the step of creating the plurality of second threads includes the step of associating each of the plurality of compressed first blocks with one of the plurality of second threads such that compressed first blocks within each of the plurality of second threads share certain common compression characteristics, as claimed in claim 22.

Claims 23-25 are objected to as being dependent from the objected to dependent claim 22.

The prior art of record, Johns (U.S. Patent No. 6,366,289), Simms (U.S. Patent No. 5,586,280), and Morikawa et al (U.S. Patent No. 6,043,897), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the step of operating upon each of the plurality of first threads also results in obtaining a plurality of first metadata sets, each first metadata set including portions of compressed first blocks which are determined to possibly have redundancies disposed therein, as claimed in claim 26.

Claims 27-28 and 30-38 are objected to as being dependent from the objected to dependent claim 26.

Response to Arguments

9. Applicant's arguments filed on 2-July-2003 with respect to claims 1-46 have been fully considered but they are not fount to be persuasive:

In response to applicant's arguments for claim 1, that claim 1 "specifically recites the creation of independent threads that a processor or processors that support threads can operate upon independently", the arguments have been fully considered but are not deemed persuasive, because "independent threads" that can be "operated upon independently" are not recited in the rejected claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments that the examiner's "interpretation of 'threads' is incorrect", and that "the examiner, instead of reading the term 'thread' as a processor operation, which was the context clearly recited, instead uses the term thread to refer to a portion of data", the arguments have been fully considered but are not deemed persuasive, because despite the amendment made to the specification, the language reciting the claim limitations of "threads" can still be interpreted as "sections", "segments", and "chunks" of data. The term "thread" used in the referenced rejected claim does not specifically limit the recited "thread" to mean a "processor operation". As mentioned above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Further, upon assumption that "thread" as recited in the rejected claims means a "processor operation", the arguments are still not found to be persuasive, because Johns clearly teaches "processor

operations". Johns teaches performing "compression process" (see column 14, lines 24-27, and see column 17, lines 45-51) and "decompression process" (see column 11, lines 15-18, and see column 17, lines 45-51.) Johns' compression and decompression processes clearly reads on the recitation of claim 1, "operating upon each of the plurality of first threads to obtain a plurality of compressed first threads".

In response to applicant's arguments that Johns "clearly does not teach or suggest the concept of *thread*. Johns nowhere uses the term *thread*" and that "there is no relationship between processor operation and chunks of data", the arguments have been fully considered but are not found to be persuasive, because Johns teaches both concepts of *thread* as explained above. With regards to *thread* interpreted as "chunks of data", Johns' teachings have been discussed in the previous office action. With respect to *thread* interpreted as a "processor operation", Johns specifically teaches *thread* as a "compression process" (see column 15, lines 36-40.)

In response to applicant's arguments that "there is no unit of data smaller than a block recited in the claims" and that "in Johns, however, "chunks" are a subset of the block", the arguments have been fully considered but are not deemed persuasive, because Johns teaches "blocks" (see Abstract) and teaches performing compression and decompression processes on such "blocks" (see column 3, lines 2-3.)

In response to applicant's arguments that "how one of ordinary skill would be motivated to combine an invention directed to a method for managing compression and decompression of an

electronic display image stored in a video memory with an invention that is essentially a printer impermissibly using hindsight, is not apparent to the applicant", the arguments have been fully considered but are not found to be persuasive, because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation and obviousness is established in the knowledge generally available to one of ordinary skill in the art to have modified the invention of Johns by the teachings of Simms because operating threads in parallel would increase efficiency and reduce operation time.

Further, in response to applicants' arguments above, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument regarding claims 9 and 14, that "the second threads are not distinguished from the first threads", the argument has been fully considered but is not

deemed persuasive, because Johns teaches "a variety of compression/decompression methods" which is read on "distinguishing threads" (see column 17, lines 45-51.)

In response to applicant's argument that claim 7 recites "each of the first threads shares certain common compression characteristics", the argument has been fully considered and the above recitation is read on Johns' "chunk control block" that stores information such as "compression format" (see column 6, lines 11-16.)

In response to applicant's argument regarding claim 16 that "there is no capacity for selecting the size of various blocks", the argument has been fully considered but is not found to be persuasive because Johns teaches "selecting the size of memory block base don the pixel format" (see column 10, lines 49-51.)

In response to applicant's argument regarding claim 20 that "there is clearly no teaching or suggestion of using the same compression method to operate upon both blocks and also compressed blocks", the arguments have been fully considered but are not deemed persuasive, because claim 20 is interpreted to as using the same method for compressing and decompressing blocks. In this case, Johns clearly teaches that "the same fixed tables" are used by the decoder as used in the encoding process (see column 20, lines 43-45.)

In response to applicant's arguments regarding claims 8 and 14 that "there is no teaching or suggestion for predicting an estimated compression time and estimated compression amount for

each block", the arguments have been fully considered but are not deemed persuasive, because Morikawa et al clearly teaches "a controller estimating compression time for compression and expansion time for expansion" (see Abstract, and see column 2, lines 4-18, where "predicting an estimated time" is read on "estimating compression time".)

In response to applicant's arguments regarding claims 9 and 15, that "Johns is not properly modifiable", the arguments have been fully considered but are not found to be persuasive in view of the "motivation" and "obviousness" remarks and discussions made above.

In response to applicant's arguments regarding claims 39 and 40 that "nothing is mentioned about compressing in a multiple passes to obtain compressed digital data" and that "nothing is mentioned about decompressing the compressed digital data in a single pass", the arguments have been fully considered but are not deemed persuasive, because it is inherent that "compressions" may be handled in "multiple passes", wherein each newly compressed section is "added" to the compressed file, and it is also inherent that a single compressed file (which may have been obtained in multiple compression passes) can be decompressed in a single pass, returning the contents of the compressed file into its original uncompressed format.

In response to applicant's argument regarding claim 46 that "there is no teaching or suggestion of metadata at all, and clearly no teaching or suggestion to use metadata obtained from one compression system in another compression system", the argument has been fully considered but is not deemed persuasive, because Johns teaches "metadata" as "information

about the chunk" of data, which is stored in a "chunk control data". This stored information, as taught by Johns, includes "pertinent information about a chunk such as the format of pixels within the chunk, its compression format, and the memory location of the chunk's pixels in physical memory" (see column 6, lines 11-16.)

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

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September 16, 2003

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100